

What is claimed is:

1. A computer program with network-based functionality, comprising:
code for displaying a word processing document capable of operation in
5 connection with a productivity application resident in computer memory;
code for coupling at least one network-enabling object to said word
processing document, wherein said at least one network-enabling object is configured to provide
network-based functionality to said word processing document; and
network-functionality code for allowing the productivity application to
interpret the at least one network-enabling object.
2. The computer program of claim 1, further comprising linking code that
enables said at least one network-enabling object to link to said network-functionality code.
3. The computer program of claim 2, wherein said at least one network-
15 enabling objects is embedded in at least one cell of a table of said word processing document.
4. The computer program of claim 2, wherein said at least one network
enabling objects is embedded at an insertion point of said word processing document.
5. The computer program of claim 2, wherein said at least one network
enabling object is embedded within a second document type within said word processing
20 document.

6. The computer program of claim 5 wherein said second document type comprises a spreadsheet.

7. The computer program of claim 1, further comprising linking code operative with said network-functionality code, wherein said linking code allows said network-
5 functionality code to function in combination with said at least one network-enabling object to deliver said network-based content within said word processing document.

8. A word processing document with network-based functionality that may be used with a network-enabled productivity application, comprising:

a wireframe, including scripting code that remains static during a run time
10 of a productivity application, said wireframe comprising at least one of: static data and query configurations; and

native script code operative with said wireframe to provide network-based content within said word processing document.

15 9. A method of creating a word processing document having network-based functionality using a network-enabled productivity application, comprising:

launching a network-enabled productivity application;

opening a word processing document with the network-enabled
productivity application; and

20 instructing said network-enabled productivity application to embed at least one network-enabling object for importing network-based content into said word processing document, wherein said embedded at least one network-enabling object is linked to network-

functionality code such that use of the embedded at least one network-enabling object is interpretable by the productivity application.

10. The method of claim 9, further comprising:

5 saving said word processing document with the at least one embedded network-enabling object therein.

11. The method of claim 9, wherein said launching the network-enabled productivity application comprises:

10 launching the productivity application; and

15 launching network-functionality code, which enables network-based content to be viewed within the productivity application.

12. The method of claim 10, wherein said instructing said network-enabled productivity application comprises launching decryption code for viewing encrypted network-based content within the word processing document.

13. The method of claim 9, wherein said instructing said network-enabled productivity application further comprises placing said network-functionality code into a hidden area of the word processing document.

20 14. The method of claim 9, wherein said at least one network-enabling object is embedded in at least one cell of a table of said word processing document.

15. The method of claim 9, wherein said at least one network enabling object is embedded at an insertion point of said word processing document.

16. The method of claim 9, wherein said at least one network enabling object is embedded within a second document type within said word processing document.

5 17. The method of claim 16 wherein said second document type comprises a spreadsheet.

18. A method of using a word processing document with network-based functionality within a network-enabled productivity application, comprising:

launching a network-enabled productivity application; and

10 opening a word processing document having code for providing network-based functionality in conjunction with at least one network-enabling object.

19. A method of using a word processing document with network-based functionality within a network-enabled productivity application, comprising:

15 launching a network-enabled productivity application;

opening a word processing document from within said productivity application; and

activating at least one embedded network-enabling object for providing network-based content within said word processing document, wherein said at least one
20 embedded network-enabling object provides a continuous feed of network-based content to said word processing document.

20. A method of generating a word processing document with network-based functionality embedded therein, comprising:

launching a network-enabled productivity application upon a request from
5 a user;

opening a word processing document from within the productivity application upon a general request from a user; and

embedding at least one network-enabling object to import network-based content into said word processing document upon a third request from a user.

21. The method of claim 20 further comprising:

saving said word processing document with said at least one embedded network-enabling object therein.

22. The method of claim 20, wherein said embedding comprising:

reading network-functionality code from a storage area associated with said word processing document,

encrypting the network-functionality code for said at least one network-enabling object, and

placing said encrypted code into a hidden area of the word processing document to create packed encrypted code.

23. A method for generating a word processing document with network-based functionality for use with a network-enabled productivity application, comprising:

launching a network-enabled productivity application upon request from a user;

5 opening a word processing document within said productivity application upon request from said user;

receiving instructions from said user to embed at least one network-enabling object that provides network-based content into said word processing document.

24. The method of claim 23, further comprising:

embedding said at least one network-enabling object into said word processing document.

25. The method of claim 23, further comprising:

15 saving said word processing document with said at least one embedded network-enabling object therein.

26. A method of running a network-enabled productivity application for providing network-based functionality to a word processing document, comprising:

20 launching a network-enabled productivity computer application upon request from the user;

opening a word processing document with said network-enabled productivity application upon request from the user, said word processing document containing

network-functionality code for at least one network-enabling object that provides network-based functionality to said word processing document; and

unpacking said network-functionality code for said at least one network-enabling object embedded in said word processing document.

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27. The method of claim 26, wherein said network-functionality code is provided in an encrypted format, said unpacking further comprising decrypting the network-functionality code for enabling said at least one network-enabling object to be embedded in said word processing document.

28. A method of using of a word processing document with network-based functionality embedded therein in conjunction with a network-enabled productivity application, comprising:

launching a network-enabled productivity application upon request from a user;

opening a word processing document from within said network-enabled productivity application upon request from said user;

changing the contents of said word processing document upon instruction from said user; and

storing said word processing document.

29. The method of claim 28, wherein said word processing document contains packed network-functionality code in an encrypted format for embedding at least one network-enabling object that provides network-based functionality to said word processing document.

5 30. The method of claim 29, further comprising unpacking said network-functionality code for said at least one network-enabling object in said word processing document after said opening.

31. A method for loading a word processing document with network-based functionality with the use of a network-enabled productivity application, comprising:

- launching a network-enabled productivity application upon request from a user;
- opening a word processing document within said productivity application upon request from said user;
- 15 receiving an indication of said opening of said word processing document by an installed base service in said network-enabled productivity application;
- detecting, with said installed base service, at least one network-enabling object;
- reading embedded network-functionality code associated with said word
- 20 processing document to incorporate network-band content corresponding to the at least one network-enabling object into said word processing document.

32. A method for transmitting a word processing document with network-based functionality from a central server for use with a network-enabled productivity application launched on a remote terminal, comprising:

establishing a connection with the remote terminal by a server, wherein
5 said server has a word processing document with network-based functionality stored therein;
receiving a request for said word processing document from said remote terminal; and
transmitting said word processing document to said remote terminal in response to said request .

33. The method of claim 32, further comprising authenticating a user operating said remote terminal after said establishing said connection.

34. The method of claim 33, wherein said authenticating comprises:
10 receiving identification information from said user; and
determining a login status of said user band on said identification information.

35. A method performed by a server for transmitting a word processing
20 document with network-based functionality for use with a network-enabled productivity application performed by a server, comprising:

establishing communication with a remote terminal;
authenticating a user associated with the remote terminal;

receiving a request from said remote terminal to download a word

processing document with network-based functionality; and

transmitting the word processing document with said network-based
functionality to the remote terminal.

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36. The method of claim 35, wherein said establishing further comprises:
establishing a secure connection with said remote terminal.

37. A method for transmitting a word processing document with network-
based functionality for use with a network-enabled productivity application operating on a
remote client, comprising:

receiving a request from a remote client at a web server for downloading a
requested word processing document with network-based functionality;

authenticating said remote client; and

transmitting the requested word processing document to said remote
client.

38. The method of claim 37, wherein said authenticating comprises:
receiving authentication information from said remote client.

39. The method of claim 37, further comprising selecting a version of the
word processing document to be transmitted to said remote client based on the productivity
application.

40. A productivity application, comprising:

means for displaying a user-readable representation of a word processing document operating in conjunction with a productivity application; and

5 means for providing network-based functionality to said word processing document.

41. The productivity application of claim 40, further comprising: means for linking said providing means to said displaying means representation, wherein said linking means enables said the providing means to receive said network-based content within the word processing document from a network.

42. A computer readable medium encoded with processing instructions for implementing a method of enabling network functionality within a word processing document,
15 the method comprising:

displaying a user-readable representation of a word processing document;

and linking at least one network enabled object to said word processing document for delivering network-based content thereto.

20 43. A word processing document having network-based functionality and embedded network-functionality code that may be used with a productivity application, comprising:

a word processing document capable of operating under a productivity application resident in computer memory; and

at least one network-enabling object coupled to said word processing document, wherein said at least one network-enabling object is configured to provide network-based functionality to said word processing document.

44. The word processing document of claim 43, further comprising linking code that enables said network-enabling objects to link to said word processing document.

45. The word processing document of claim 43, wherein said at least one network-enabling objects are embedded in said word processing document.

46. The word processing document of claim 43, further comprising linking code software resident in the computer memory, which allows said at least one network-enabling object to deliver network-based functionality to said word processing document.

47. A word processing document with network-based functionality that may be used with a productivity application, comprising:

a wireframe including data and scripting code that remains static during a run time of a productivity application, said wireframe further comprising:

at least one embedded network-enabling object to provide network-based functionality from within said word processing document, said at least one embedded network-enabling object in communication with native user interface, and

code for allowing said at least one network-enabling object to launch the network-based functionality from within the word processing document; the word processing document further comprising:

5 native script code for cooperation with said wireframe, to provide functionality to native functions of said word processing document.

48. A word processing document having network-based functionality for use with a network-enabled productivity application, comprising:

10 a wireframe, wherein said wireframe comprises static scripting code that maintains its state during a run time of the productivity application;

15 population data dynamically generated by a network enabled object to populate the wireframe during the run time of the productivity application, and

form data entered by a user during the run time of the productivity application for interaction with the wireframe and the population data of the word processing document.

49. The word processing document of claim 48, wherein said wireframe comprises at least one network-enabling object to provide network-based functionality to said word processing document.

20 50. The personal computer document of claim 49, wherein said form data is transmitted to a server over a network connection that provides feed for the network-based functionality.

51. A method of creating a word processing document having network-based functionality and embedded network-functionality code, comprising:

launching a network-enabled productivity application;

opening a word processing document using the productivity application;

embedding at least one network-enabling object that implements network-based functionality into said word processing document;

embedding network-functionality code in said word processing document,

wherein said network-functionality code provides functionality to said at least one embedded network-enabling object; and

saving said word processing document with said embedded network-enabling objects and said embedded network-functionality code therein.

52. The method of claim 51, wherein said launching comprises:

launching the productivity application; and

launching network-functionality software, wherein said network-functionality software is linked to said productivity application such that the network-functionality software adds network-based functionality to said productivity application.

53. A method of creating a word processing document having network-based functionality and embedded network-functionality code, comprising:

launching a productivity application;

opening a word processing document within the productivity application;

embedding at least one network-enabling object that implements network-based functionality into the word processing document, said at least one embedding network-enabling object comprising encrypted code for said at least one network-enabling object stored in a hidden area of the word processing document; and

5 embedding network-functionality code in said word processing document, wherein said network-functionality code provides functionality to said at least one embedded network-enabling object, said embedding network-functionality code comprising encrypted network-functionality code stored in said hidden area of personal computer document.

10 54. The method of claim 53, further comprising:

saving said word processing document with said at least one embedded network-enabling object and said embedded network-functionality code therein.

15 55. A method for generating a word processing document having network-based functionality and embedded network-functionality code, comprising:

launching a network-enabled productivity application upon request from a user;

providing a word processing document maintained by said productivity application;

20 embedding at least one network-enabling object to implement network-based functionality into said word processing document by coupling said at least one network-enabling object to said word processing document; and

embedding network-functionality code into said word processing document, wherein said network-functionality code provides functionality to said at least one embedded network-enabling object for allowing display of network-based content.

5 56. The method of claim 55, further comprising:

storing said word processing document with said at least one embedded network-enabling object and said embedded network-functionality code therein.

10 57. A method of generating a word processing document with network-based functionality and network-functionality code embedded therein, said word processing document maintained by a network-enabled productivity application running therewith, the method comprising:

15 launching a network-enabled productivity application upon request from a user;

opening a word processing document upon request from a user;

embedding at least one network-enabling object to implement network-based functionality into said word processing document upon request from a user, said embedding comprising:

reading code from a native script code storage area in said word

20 processing document, and

encrypting code for providing network-based functionality in said word processing document; and

embedding the network-functionality code into said word processing document, wherein said network-functionality code provides functionality to said at least one embedded network-enabling object.

5 58. The method of claim 57, further comprising:

storing said word processing document with said at least one embedded network-enabling object therein.

10 59. The method of claim 57, wherein said embedding network-functionality code into said word processing document further comprises encrypting said network-functionality code after reading said code from said native script code storage area.

15 60. The method of claim 59, wherein said embedding network-functionality code into said word processing document further comprises placing at least portion of said encrypted network-functionality code and said at least one network-enabling object into a hidden area of the word processing document to create packed encrypted network-functionality code after said encrypting said network-functionality code.

20 61. A method for updating a word processing document having network-based functionality in conjunction with a productivity application, comprising:

launching a productivity application upon request from a user;

opening a word processing document from within said productivity application upon request from said user, said word processing document containing network-

functionality code and at least one network-enabling object that provides network-based
functionality to said word processing document;

unpacking said network-functionality code in said word processing
document; and

5 changing a portion of said word processing document upon instruction
from said user.

62. The method of claim 61, wherein said unpacking of network-functionality
code comprises activating code for unpacking to run in a productivity application extender of the
network-functionality code.

63. The method of claim 62, wherein said unpacking of network-functionality
code further comprises decrypting said encrypted network-functionality code and code for said at
least one network-enabling object in said word processing document upon deployment of
15 executor code in said native script engine.

64. A method for transmitting a word processing document having network-
based functionality and embedded network-functionality code by a remote terminal, comprising:

20 establishing communication with a remote terminal at a sever, wherein
said server has access to a word processing document having network-based functionality and
embedded network-functionality code;

authenticating an identity of a remote user corresponding to the remote
terminal; and

transmitting the word processing document with network-based
functionality to the remote terminal, substantially upon authentication of the remote user.

65. A method for transmitting a word processing document with network-
5 based functionality embedded therein for use with a productivity application by a remote client,
comprising:

receiving a login request from a remote client;

receiving a request from said remote client for downloading a word
processing document with network-based functionality; and

10 transmitting the requested word processing document with network-based
functionality to said remote client, said word processing document comprising network-
functionality code and at least one network-enabling object for launching said network-based
functionality from within said productivity application.

15 66. The method of claim 65, further comprising:

selecting a version of word processing document to be transmitted to said
remote client.

20 67. A word processing document with network-based functionality having
embedded network-functionality code that may be used with a productivity application,
comprising:

means for displaying a user-readable representation of word processing
document data capable of running on a productivity application resident in computer memory;

means for providing network-based functionality to said word processing document; and

means for linking said providing means to said displaying means, wherein said linking means enables said providing means to deliver network-based functionality within
5 said word processing document.

68. An network-enabled productivity application for allowing a user to create word processing document having network-base a functionality, comprising:

native productivity application code for generating a word processing document;

a native script engine in communication with said native productivity application code, wherein said native script engine is capable of executing at least one macro;
and

network-functionality code for providing network-based functionality
15 within the word processing document in conjunction with said at least one macro.

69. A network-enabled productivity application for allowing a user to create a word processing document with network-based functionality, comprising:

native productivity application code;

20 a native script engine in communication with said native productivity application code, wherein said native script engine enables execution of one or more macros; and

an add-in package, comprising:

an interface for communicating with said productivity application;

a library comprising a plurality of user tools, said user tools exposed to a user through a user interface, said user tools configured to provide network-based functionality within a word processing document;

5 a library comprising a plurality of developer tools, said developer tools exposed to the user through said user interface, said developer tools configured to enable the creation of the word processing document with network-based functionality; and

a productivity application extender in communication with said user tools, said productivity application extender configured to provide network-functionality services and application services within said productivity application.

10 70. A method of augmenting a productivity application with network-based functionality, comprising:

receiving custom network-based functionality to add network-based operations to a productivity application;

15 linking said network-based functionality to said productivity application; and embedding at least one network-enabling object within a word processing document maintained by said productivity application.

20 71. A method of augmenting a productivity application, comprising:

storing software code for network-based functionality in a platform configured for use with a suitable operating system, said code for network-based functionality adding capability for network-based functionality to an existing productivity application;

transmitting said software code to a remote terminal operating said productivity application for allowing a user to launch and access network-based functionality from within a word processing document maintained by said productivity application.

5 72. The method of claim 71, further comprising obtaining network-functionality software before said storing, wherein said network-functionality software facilitates said storing of code for network-based functionality within the productivity application.

10 73. The method of claim 72, wherein said network-functionality software includes a developer tool set for enabling development of an Internet application within the productivity application by providing a means for creating code necessary for embedding at least one network-enabling object in said word processing document.

15 74. The method of claim 73, wherein the word processing document includes the Internet application.

20 75. A method of augmenting a productivity application, comprising:
 launching a software platform to allow authoring by a user of custom network-based functionality, said network-based functionality designed to add network-based operations to a word processing document;
 linking at least one network-enabling object to said productivity application for allowing the user to access and launch network-based functionality from within said productivity application, said linking taking place upon instruction from said user; and

deploying said network-based functionality upon instruction from said user, wherein said deployment allows activation of said at least one network-enabling object from within said productivity application by said user.

5 76. A method for transmitting a software package to augment a productivity application with network-based functionality, comprising:

 establishing a connection with a remote terminal at a central server having access to a software package for augmenting a productivity application on the remote terminal with network-based operations; and

 transmitting the software package to said remote terminal.

10 77. The method of claim 76, further comprising authenticating the identity of a user operating said remote terminal prior to said transmitting.

15 78. A method for transmitting a software package to augment a productivity application with network-based functionality, comprising:

 receiving a login request from a remote client;

 receiving a download request from said remote client to download said software package from a web server;

20 receiving authentication information from said remote client by web server;

 verifying the authentication information of said remote client; and

5 serving the requested software package to said remote client, said software package comprising network-functionality software for augmenting a productivity application for launching network-based functionality from therein and embedding at least one network-enabling object for network-based functionality in a word processing document maintained by said productivity application.

79. A method of augmenting a productivity application with a plurality of network-based services, comprising:

10 obtaining network-functionality software, said network-functionality software including a library of routines to provide network-based functionality within a word processing document opened in the productivity application; and

installing said network-functionality software for use with said productivity application.

15 80. A method of augmenting a productivity application with a plurality of network-based user tools, comprising:

obtaining user tools containing a library of files enabling use of network-based functionality within a word processing document opened in the productivity application; and

20 installing said user tools on a local client.

81. A method for creating a network-enabling object to provide network-based functionality to a word processing document, comprising:

receiving an information model that provides information for conforming
a network-enabling object therewith;

developing the network-enabling object to provide network-based
functionality;

5 conforming said network-enabling object with said information model;
and

placing said network-enabling object in an appropriate location of a
system architecture for use in providing network-based functionality to a productivity application
maintaining a word processing document.

10 82. A method for creating a network-enabling object to provide network-
based functionality, comprising:

creating a Component Object Module (COM) control;

importing a service library;

15 authoring custom functionality as a component, wherein said functionality
is configured to enable access to network-based functionality from a productivity application
maintaining a word processing document; and

registering said component as a COM component of the service library.

20 83. A method for creating a network-enabling object to provide network-
based functionality to a productivity application for operating a word processing document,
comprising:

creating a Component Object Module (COM) control;

importing a service library;
receiving an information model, wherein said information model provides
information for conforming the created network-enabling object therewith;
authoring custom functionality as a component, wherein said functionality
5 is configured to enable access to network-based functionality;
registering said component as a COM component of the service library;
and
placing said network-enabling object in an appropriate location of a
system architecture for allowing access to network content through a word processing document
10 maintained by a productivity application.

84. A method for creating a network-enabling object to provide network-
based functionality to a productivity application maintaining a word processing document,
comprising:
15 selecting a network-enabling object from a library of network-enabling
objects;
downloading the selected network-enabling object onto a computing
device;
installing the downloaded network-enabling object;
20 launching a productivity application for manipulating a word processing
document; and
adjusting settings for the productivity application to include said installed
network-enabling object.

85. The method of claim 84, wherein said library comprises a plurality of files accessible from at least one of a web site, a File Transfer Protocol (FTP) site and a software medium.

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86. The method of claim 84, further comprising opening the word processing document after said launching the productivity application.

87. The method of claim 86, wherein the network-enabling object is embedded in said word processing document after said opening of the productivity application.

88. The method of claim 84, wherein the network-enabling object is embedded within said productivity application to augment said productivity application.

89. The method of claim 84, wherein the network-enabling object is placed on said computing device as a distinct icon for launching said network-based functionality from any software resident on the computing device.

90. A method for creating a network-enabling object to provide network-based functionality to a word processing document, comprising:

selecting a network-enabling object from a library of network-enabling objects, wherein said library comprises a plurality of files accessible from at least one of a web site, File Transfer protocol (FTP) site and a software medium;

device;
downloading the selected network-enabling object onto a computing
device;
installing the downloaded network-enabling object on the computing
device;
5 launching a productivity application on the computing device;
opening a word processing document from said productivity application;
and
embedding said network-enabling object in said word processing
document.

10 91. A method for downloading a network-enabling object to a computing
device, comprising:
establishing a connection with a server having a library of network-
enabling objects stored therein;
15 selecting a library of network-enabling objects;
transmitting a request for downloading a network-enabling object from
said library of network-enabling objects, the network enabling object for allowing a word
processing document to receive and manipulate network content within a word processing
document; and
20 receiving the network-enabling object.

92. A method for downloading network-enabling objects to a computing
device, comprising:

receiving a login request from a remote client;
exposing a library of network-enabling objects to said client;
receiving a request from said client for downloading a network-enabling
object from said library of network-enabling objects, the network enabling object for allowing a
word processing document to receive network content;
5 authenticates said remote client; and
transmitting the requested network-enabling object to said client.

93. A network-enabling object for providing network-based functionality to a
word processing document productivity application, comprising:

initializing code for initializing the network-enabling object;
launching code for launching network-based functionality within a word
processing document after said initializing code; and
user interface code for displaying of the network-enabling object in an
appropriate location of a window, after launching.

94. The network-enabling object of claim 86, further comprising a registration
code for registering said object as a COM component of a service library said initializing.

95. A network-enabling object for providing network-based functionality to a
word processing document productivity application, comprising:

initialization code for launching network-based functionality from within a
word processing document productivity application; and

run-time code for providing the network-based functionality in real-time.

96. A computer productivity application having network-based functionality, comprising:

5 native code for a productivity application, said native code provided with network-based functionality and non-network-based functionality, wherein said network-based functionality provides network-based operations within a word processing document maintained by the productivity application and said non-network-based functionality provides non-network-based functionality to the word processing document.

97. A productivity application having network-based functionality, comprising:

user interface code;

code for providing network-based functionality from within said productivity application, said network-based functionality exposed to a user through a said user interface code;

code for providing non-network functionality from within said word processing document productivity application, said non-network functionality exposed to the user by said user interface code; and

20 native code for the productivity application, said native code embedded with said network-based functionality and said non-network-based functionality for access within a word processing document maintained by said productivity application.

98. The productivity application of claim 97, wherein said code for providing network-based functionality further comprises a library comprising a plurality of user tools, said user tools exposed to the user by said user interface, code said user tools configured to provide the network-based functionality within the word processing document.

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99. The productivity application of claim 90, wherein said code for providing network-based functionality further comprises a library including a plurality of developer tools, said developer tools exposed to a user by said user interface code, said developer tools configured to provide said network-based functionality within the productivity application for embedding the network based functionality in the word processing document.

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100. A word processing document productivity application having network-based functionality, comprising:

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native productivity application code for complementing non-network based functionality;

a native object model in communication with said native productivity application code;

a native script engine in communication with said native productivity application code, wherein said native script engine provides functionality to native scripts;

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code for providing network-based functionality from within said word processing document productivity application;

code for providing non-network functionality from within said word processing document productivity application; and

user interface code allowing a user to activate said network-based
functionality and said non-network functionality.

101. The word processing document productivity application of claim 100,
5 wherein said network-based functionality is exposed to the user by said user interface code.

102. The word processing document productivity application of claim 100,
wherein said non-network functionality is exposed to the user by said user interface code.

103. The word processing document productivity application of claim 100,
10 wherein said code for providing network-based functionality comprises a library of user tools for
use by a user to implement said network based functionality.

104. The word processing document productivity application of claim 103,
15 wherein said user tools are exposed to said user through said user interface.

105. The word processing document productivity application of claim 104,
wherein said code for providing said network-based functionality comprises a library of
developer tools including tools for creating a word processing document with network-based
20 functionality.

106. The word processing document productivity application of claim 105,
wherein said developer tools are exposed to said user by said user interface code, said developer

tools providing the ability to embed code for said network-based functionality within said word processing document by making a selection of a task.

107. The word processing document productivity application of claim 106,
5 wherein said code for providing network-based functionality comprises a library of network-connectivity tools.

108. A method of creating a word processing document productivity
application having network-based functionality, comprising:
10 authoring native code for a word processing document productivity
application, said native code configured to provide non-network functionality and network-
based functionality, said network-based functionality including the ability to access network
based content within a word processing document; and
15 distributing said native code for use by a user.

109. The method of claim 108, wherein said native code comprises:
a native object model, and
a native script engine in communication with said native object model,
wherein said native script engine for executing network-based functionality within said word
20 processing document productivity application.

110. A method of creating a word processing document productivity
application having network-based functionality, comprising:

generating network-based functionality in a software platform for
providing network-based operations to a word processing document productivity application;
generating non-network-based functionality in the software platform; and
generating native code for the word processing document productivity
5 application, said native code embedded with said network-based functionality and said non-
network-based functionality.

111. A method of creating a word processing document productivity
application having network-based functionality, comprising:
10 authoring native code for a word processing document productivity
application, said native code configured to provide non-network functionality and network-based
functionality in a platform configured for use with an operating system, said network-based
functionality being capable of providing real-time access to dynamic network-based content
from a network within a word processing document; and
15 distributing said native code for use by a user.

112. A method of creating a word processing document productivity
application having network-based functionality, comprising:
generating network-based functionality in a platform configured for use
20 with an operating system, said network-based functionality for providing network-based
operations to the word processing document productivity application;
generating non-network-based functionality in a platform configured for
use with said operating system; and

generating native code for the word processing document productivity application, said native code embedded with said network-based functionality and said non-network-based functionality for providing non-network-based operations and network-based operations from said word processing document productivity application.

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113. A method of creating a word processing document productivity application having network-based functionality, comprising:

generating code for network-based functionality in a software platform for providing network-based operations to a word processing document productivity application;

generating code for non-network-based functionality in the software platform, said code for non-network-based functionality comprising a native object model and a native script engine; and

generating native code for the word processing document productivity application, said native code embedded with said network-based functionality and said non-network-based functionality.

114. The method of claim 113, wherein said code for network-based functionality comprises a library of user tools, said user tools configured to provide network-based functionality including at least one of :

page scraping; and

stock quotes in real time.

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115. The method of claim 114, wherein said code for network-based functionality comprises a productivity application extender in communication with said user tools, said productivity application extender configured to provide at least one of :

document packaging, caching, data initialization, and command routing.

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116. The method of claim 115, wherein said code for network-based functionality comprises a library of developer tools, said developer tools configured to provide at least one of :

layout utilities, forms management, query management, a data modeler, and a packaging assistant.

117. A method of creating a word processing document productivity application having network-based functionality, comprising:

receiving code in a platform for network-based functionality to provide network-based operations to a word processing document productivity application;

receiving code in the platform for non-network-based functionality to provide non-network-based operations to the word processing document productivity application; and

receiving native code for the word processing document productivity application in the platform, wherein said native code is embedded with said network-based functionality and said non-network-based functionality.

118. A method of creating a word processing document productivity
application having network-based functionality, comprising:
receiving code in a software platform for custom network-based
functionality to provide network-based operations to a word processing document productivity
5 application;

receiving code in the software platform for custom non-network-based
functionality to provide non-network-based operations to the word processing document
productivity application, said code for non-network-based functionality comprising a native
object model, and a native script engine; and

receiving native code for the word processing document productivity
application, said native code embedded with said network-based functionality and said non-
network-based functionality.

119. A system for providing a combination of network-based services and non-
15 network-based services within a word processing document productivity application, comprising:

a non-network component that is interpretable by a word processing
document productivity application;

a network component that is capable of providing real-time access to
network-based services, and

20 code associated with said word processing document productivity
application for interpreting said network component for allowing access to said network-based
services within the word processing document productivity application.

120. The system of claim 119, wherein said code for said network-based services are received over a network.

121. The system of claim 120, wherein said network-based services provide
5 dynamic network-based content to a word processing document which is opened within the word processing document productivity application.

122. The system of claim 121, wherein said dynamic network-based content is accessible in real-time from within the word processing document opened in the word processing document productivity application.

123. The system of claim 122, wherein said code comprises:
an extender routine to support base functionality of said network
component; and
15 developer tools for developing the word processing document with network-enabling objects embedded therein.

124. The system of claim 123, wherein said developer tools enable creation of Internet applications using said word processing document productivity application by providing
20 means for embedding at least one network-enabling object in the word processing document.

125. The system of claim 124, wherein said developer tools are accessible from within the word processing document productivity.

126. The system of claim 124, wherein said developer tools comprises a user interface to expose said developer tools to a user.

5 127. The system of claim 126, wherein said user interface is a toolbar that exposes a plurality of tool sets to the user.

128. The system of claim 126, wherein said user interface is exposed to the user within the word processing document productivity application, said user interface appearing in addition to a standard toolbar of the word processing document productivity application.

129. The system of claim 124, wherein said extender routines are provided as a component object model component.

15 130. A system for providing a combination of network-based services and non-network based services within a word processing document productivity application, comprising:

a non-network component that is interpretable by a word processing document productivity application;

20 a network component that is capable of providing access to network-based services over a network, wherein said network-based services provide dynamic network-based content to a word processing document opened within the word processing document productivity application;

extender routines to support base functionality of said network component,
said extender routines capable of interpreting said network component for allowing access to
said network-based services within the word processing document productivity application; and
developer tools for providing the capability for developing a word
5 processing document with network-enabling objects embedded therein, said developer tools
accessible within the word processing document productivity application.

131. The system of claim 130, wherein said extender routines are provided
separately from external to the word processing document productivity application.

132. A system for providing a combination of network-based services and non-
network based services within a word processing document productivity application, comprising:
a network component that is capable of providing access to network-based
services, said network-based services being received from a network for utilization within the
word processing document productivity application, said first component providing real-time
15 content from the network; and

a non-network component for providing non-network-based services
within said word processing document productivity application.

20 133. The system of claim 132, wherein said non-network component is capable
of providing static content.

134. The system of claim 133, wherein said network-based services provide dynamic network-based content to a word processing document which is opened within the word processing document productivity application.

5 135. The system of claim 134, wherein said dynamic network-based content is updated in real-time within the word processing document, while maintaining said static data.

136. The system of claim 135, wherein said first component comprises developer tools, said developer tools providing the capability for developing the word processing document with network-enabling objects embedded therein.

137. The system of claim 136, wherein said developer tools enable creation of an Internet application using said word processing document production application by embedding network-enabling objects in the word processing document.

138. The system of claim 137, wherein said developer tools comprises a user interface to display said developer tools to a user.

139. The system of claim 138, wherein said user interface is a toolbar that displays a plurality of tool sets to the user within the word processing document productivity application.

140. A system for providing a combination of network-based services and non-network based services within a network-enabled word processing document productivity application, comprising:

means for providing non-network based functionality;

5 means for providing real-time access to network-based services; and

means for allowing access to said network-based services within the

network-enabled word processing document productivity application.

141. A system for providing a combination of network-based services and non-network-based services within a word processing document productivity application, comprising:

10 means for providing non-network based functionality that is interpretable by a word processing document productivity application;

means for providing access to network-based services over a network in communication with said means for providing non-network-based functionality;

15 means to support base functionality of said network-based services, wherein said means to support base functionality is capable of interpreting said means for providing access to network-based services; and

means for embedding network-enabling objects in a word processing document which is accessible from within the word processing document productivity application.

142. A system for providing a combination of network-based services and non-network based services within a word processing document productivity application, comprising:

means for providing access to network-based services over a network for utilization within the word processing document productivity application, said means for providing access to network-based services further for providing real-time content from the network; and

5 means for providing non-network-based services within said word processing document productivity application.

143. A method for providing network-based functionality to a word processing document embedded with network-enabling objects, comprising:

receiving a request from a remote client to receive network-based functionality, said remote client having network-enabling software for embedding a network enabling object within a word processing document; and

transmitting, to said remote client, software code for implementing desired network-based functionality, in response to the request.

144. The method of claim 143, further comprising authenticating said remote client after receiving said request from the remote client.

145. The method of claim 144, further comprising providing a secure
20 connection to said client after said authenticating.

146. A method for providing network-based functionality to a word processing document embedded with at least one network-enabling object, said word processing document opened in a productivity application, the method comprising:

receiving a request from a remote client to receive network-based
5 functionality for a word processing document, said remote client having locally-stored, requisite network-enabling software;

authenticating said remote client;

providing a secure connection to said client; and

transmitting said network-based functionality for installation through said
10 network-enabling software to said remote client.

147. The method of claim 146, wherein said network-enabling software is
executed on said remote client with said productivity application.

148. A method for providing network-based functionality to a word processing document embedded with at least one network-enabling object, said word processing document being executed on a remote client, the remote client in connection with a server providing support for the network-based functionality, the method comprising:

receiving a login request from a remote client;

receiving a request for network-enhanced functionality from said remote
20 client;

transmitting said request to a web server extender;

providing security authentication services to verify and authenticate said remote client by said web server extender; and

transmitting requested network-enhanced functionality to said remote client for embedding network functionality within a word processing document.

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149. A method for providing network-based functionality to a word processing document embedded with at least one network-enabling object, comprising:

receiving a login request from a remote client;

authenticating said remote client;

establishing a secure connection with said client;

receiving information from said client to determine whether said remote client has requisite network-enabling software stored locally; and

transmitting to said client, code for implementing network-based within a word processing document.

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150. A method for providing network-based functionality to a word processing document having a network-enabling object, comprising:

providing a secure connection to said client;

transmitting a query to said remote client to determine whether said

20 remote client has network-enabling software stored locally;

transmitting requisite network-enabling software to said remote client; and

providing said client with desired network-based functionality through said network-enabling software for implementation within the word processing document.

151. A method for providing network-based functionality to a word processing document having a network-enabling object, comprising:

providing a secure connection to said client;

receiving a request for network-enhanced functionality from said remote client;

transmitting said request to a web server extender; and

transmitting requested network-enhanced functionality to said remote client for implementation within a word processing document.

152. A method for receiving network-based functionality in a word processing document embedded with network-enabling objects, said word processing document being maintained on a remote client, the remote client connecting to a server providing support for the network-based functionality, the method comprising:

sending a login request to a server providing network-based functionality;

providing authenticating information;

establishing a secure connection to said server;

sending a request for appropriate network-based functionality to said server; and

receiving requested network-based functionality for implementation within a word processing document.

153. A method for receiving network-based functionality in a word processing document embedded with a network-enabling object, said word processing document being stored on a remote client, the remote client in communication with a server providing support for the network-based functionality, the method comprising:

5 sending a login request to a server providing network-based functionality;
 providing authenticating information;
 establishing a secure connection to said server;
 receiving requisite network-enabling software from said server;
 sending a request for appropriate network-based functionality; and
10 receiving requested network-based functionality for implementation
within a word processing document.

154. A method for receiving network-based functionality in a word processing document embedded with a network-enabling object, said word processing document being
15 stored on a remote client, the remote client connecting to a server providing support for the network-based functionality, the method comprising:

 sending a login request to a server;
 sending a request for network-enhanced functionality to said server;
 receiving security authentication services from said server for verification
20 and authentication; and
 receiving requested network-enhanced functionality for implementation in
a word processing document.

155. A system for providing support for network-based functionality,
comprising:
a memory; and
a processor disposed in communication with said memory, said processor
5 configured to:
receive a login request from a remote client;
authenticate said remote client; and
provide said client with desired network-based functionality for
implementation within a word processing document.

156. A system for providing network-based functionality to personal computer
documents embedded with network-enabling objects, comprising:
a memory;
a processor disposed in communication with said memory, said processor
15 configured to:
receive a login request from a remote client,
authenticate said remote client,
establish a secure connection with said client after authentication, and
provide said client with network-based functionality for implementation
20 within a word processing document.

157. A method, performed by a computer, for populating a network-enabled
word processing document, comprising:

receiving a selection of one of: a cell or an insertion point within a word
processing document;

receiving a parameter for a network query, the parameter corresponding to
network-based content;

5 retrieving network-based content corresponding to the parameter; and
populating the word processing document with the network-based content based
on the selection.

10 158. The method of claim 157, wherein said parameter comprises at least one of:
a network address for retrieving said network-based content, a name of said
network-based content, and a type of said network-based content.

159. The method of claim 157, wherein said network-based content is static.

15 160. The method of claim 157, wherein said network-based content is dynamic.

161. The method of claim 160, further comprising:
receiving an indication of a change in said retrieved network-based content; and
populating the word processing document with the change in said network-based

20 content.

162. The method of claim 160, further comprising:

automatically re-populating the word processing document with dynamically-changing content in real time.

163. The method of claim 160, further comprising:

5 re-populating the word processing document with dynamically-changing content at predetermined intervals.

164. The method of claim 163, wherein said predetermined intervals are selected by a user.

165. The method of claim 157, wherein said query is a predefined query.

166. The method of claim 157, wherein said query is defined by a user.

167. A computer-readable medium, encoded with processing instructions for implementing a method, performed by a computer, for populating a network-enabled word processing document, the method comprising:

receiving a selection of one of : a cell and an insertion point of a word processing document;

20 receiving a parameter for a network query, the parameter corresponding to network-based content;

retrieving network-based content corresponding to the parameter; and

populating the word processing document with the network-based content based on the selection.

168. An apparatus for populating a cell of a network enabled word processing document, comprising:

means for receiving a selection of one of: a cell and an insertion point in a word processing document;

means for receiving a parameter for a network query, the parameter corresponding to network-based content;

means for retrieving network-based content corresponding to the parameter; and

means for populating the word processing document with the network-based content based on the selection.

169. An apparatus for populating a cell of a network-enabled word processing document comprising:

a processor; and

a memory in communication with the processor, the memory for storing a plurality of processing instructions for directing a processor to:

receive a selection of one of: a cell and an insertion point in a word processing document;

receive a parameter for a network query, the parameter corresponding to network-based content;

retrieve network-based content corresponding to the parameter; and

populate the word processing document with the network-based content
based on the selection.

170. A method for transmitting network-based content to a user through a network-
5 enabled word processing document productivity application, comprising:
receiving a request from a user for network-based content over a computer
network;
determining a network address for said network-based content;
retrieving said network-based content from a server corresponding to the network
10 request; and
transmitting the network-based content to the user for display in one of: a cell and
an insertion point of a network-enabled word processing document.

171. The method of claim 170, further comprising:
15 authenticating the user prior to the transmitting step.

172. The method of claim 170, wherein the request is received from a network-enabled
object embedded in a word processing document operated by the user.

20 173. The method of claim 170, wherein said determining further comprises:
receiving the request from the user including a network address for the network-
based content.

174. The method of claim 170, wherein said network-based content is static.

175. The method of claim 170, wherein said network-based content is dynamic.

5 176. The method of claim 175, wherein said transmitting further comprises:
streaming the network-based content to the client in real time.

177. The method of claim 175, wherein said transmitting further comprises:
transmitting said network-based content at predetermined intervals.

10 178. The method of claim 177, wherein said predetermined intervals are defined by the
user.

15 179. A computer-readable medium encoded with processing instructions for
implementing a method, performed by a computer, for transmitting network-based content to a
user through a network-enabled word processing document productivity application, the method
comprising:

receiving a request from a user for network-based content over a computer
network;

20 determining a network address for said network-based content;

retrieving said network-based content from a server corresponding to the network
request; and

transmitting the network-based content to the user for display in one of: a cell and an insertion point of a network-enabled word processing document.

180. An apparatus for transmitting network-based content to a user through a network-enabled word processing document productivity application, comprising:

means for receiving a request from a user for network-based content over a computer network;

means for determining a network address for said network-based content;

means for retrieving said network-based content from a server corresponding to the network request; and

means for transmitting the network-based content to the user for display in one of: a cell and an insertion point of a network-enabled word processing document.

181. An apparatus for transmitting network-based content to a user through a network-enabled word processing document productivity application, comprising:

a processor; and

a memory in communication with the processor, the memory encoded with a plurality of processing instructions allowing the processor to:

receive a request from a user for network-based content over a computer

network;

determine a network address for said network-based content;

retrieve said network-based content from a server corresponding to the network request; and

transmit the network-based content to the user for display in one of: a cell
and an insertion point of a network-enabled word processing document.

182. A method for receiving network-based content in a word processing document
5 productivity application, comprising:
- receiving a network-enabling object over a computer network connection;
 - embedding the network-enabling object in a word processing document
maintained by a word processing document productivity application;
 - defining a data parameter corresponding to network-based content;
 - 10 designating at least one of: a cell and an insertion point for displaying said
network-based content;
 - receiving the network-based content corresponding to the data parameter from a
network server; and
 - 15 displaying said network-based content based on said designating.
183. The method of claim 182, wherein the network-based content is static.
184. The method of claim 182, wherein said network-based content is dynamic.
- 20 185. The method of claim 182, further comprising:
- defining an interval to update said network based content.
186. The method of claim 182, further comprising:

transmitting login information prior to said receiving said network-based content.

187. A computer-readable medium encoded with processing instructions for implementing a method, performed by a computer, for receiving network-based content in a word processing document productivity application, the method comprising:

5 receiving a network-enabling object over a computer network connection;

embedding the network-enabling object in a word processing document maintained by a word processing document productivity application;

defining a data parameter corresponding to network-based content;

designating at least one of: a cell and an insertion point for displaying said network-based content;

receiving the network-based content corresponding to the data parameter from a network server; and

displaying said network-based content based on said designating.

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188. An apparatus for receiving network-based content in a word processing document productivity application, comprising:

means for receiving a network-enabling object over a computer network connection;

20 means for embedding the network-enabling object in a word processing document maintained by a word processing document productivity application;

means for receiving a defined data parameter corresponding to network-based content;

means for designating at least one of: a cell and an insertion point for displaying
said network-based content;

means for receiving the network-based content corresponding to the data
parameter from a network server; and

5 means for displaying said network-based content based on said designating.

189. An apparatus for receiving network-based content in a word processing document
productivity application, comprising:

a processor; and

10 a memory in communication with the processor, the memory for storing a
plurality of processing instructions allowing the processor to:

receive a network-enabling object over a computer network connection;

embed the network-enabling object in a word processing document
maintained by a word processing document productivity application;

15 receive a defined data parameter corresponding to network-based content;

receive a designation of at least one of: a cell and an insertion point for
displaying said network-based content;

receive the network-based content corresponding to the data parameter
from a network server; and

20 display said network-based content based on said designation.

190. A method for transmitting network-based content to a word processing document
productivity application, comprising:

transmitting a network-enabling object over a computer network connection to a client, the network -enabling object for embedding in a word processing document maintained by a word processing document productivity application;

receiving a data parameter corresponding to a request for network-based content;

5 retrieving said network-based content from a content provider; and

transmitting said network-based content to said client for display in at least one of: a cell and an insertion point of the word processing document.

191. The method of claim 190, wherein the network-based content is static.

192. The method of claim 190, wherein said network-based content is dynamic.

193. The method of claim 192, further comprising:

receiving from said client an interval to update said network based content.

194. The method of claim 192, wherein said transmitting network-based content further comprises:

transmitting said network-based content in real time.

20 195. The method of claim 190, further comprising:

authenticating login information prior to said transmitting said network-based content.

196. A computer-readable medium encoded with processing instructions for implementing a method, performed by a computer, for transmitting network-based content to a word processing document productivity application, the method comprising:

transmitting a network-enabling object over a computer network connection to a client, the network -enabling object for embedding in a word processing document maintained by a word processing document productivity application;

receiving a data parameter corresponding to a request for network-based content;

retrieving said network-based content from a content provider; and

transmitting said network-based content to said client for display in at least one of: a cell and an insertion point of the word processing document.

197. An apparatus for transmitting network-based content to a word processing document productivity application, comprising:

means for transmitting a network-enabling object over a computer network connection to a client, the network-enabling object for embedding in a word processing document maintained by a word processing document productivity application;

means for receiving a data parameter corresponding to a request for network-based content;

means for retrieving said network-based content from a content provider; and

means for transmitting said network-based content to said client for display in at least one of: a cell and an insertion point of the word processing document.

198. An apparatus for transmitting network-based content to a word processing document productivity application, comprising:

a processor; and

a memory in communication with said processor, the memory for storing a

5 plurality of processing instructions directing the processor to:

transmit a network-enabling object over a computer network connection to a client, the network-enabling object for embedding in a word processing document maintained by a word processing document productivity application;

10 receive a data parameter corresponding to a request for network-based content;

retrieve said network-based content from a content provider; and

transmit said network-based content to said client for display in at least one of: a cell and an insertion point of the word processing document.